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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/784,750 | 02/23/2004 | Frank Dimeo JR. | 2771-546 CIP 2 | 2238 |
| 23448 7590 04/06/2009 INTELLECTUAL PROPERTY / TECHNOLOGY LAW PO BOX 14329 RESEARCH TRIANGLE PARK, NC 27709 | | | | |
| EXAMINER | | | | |
| SAINT SURIN, JACQUES M | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2856 | | | | |
| MAIL DATE | | DELIVERY MODE | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/784,750

Applicant(s)

DIME ET AL.

Examiner

J M. SAINT SURIN

Art Unit

2856

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2008 and 19 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42, 46 and 47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-32, 35-38, 46 and 47 is/are allowed.
- 6) ☒ Claim(s) 34, 39-42 and 133 is/are rejected.
- 7) ☒ Claim(s) 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-849)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

3. Claims 33-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Hough et al. (US Patent 3,437,511).

Regarding claims 33-34, Hough discloses a gas-sensing filament (10) comprising: a coating structure and a core structure (a composite filament comprising a core of a high strength material), (col. 3, lines 31-35); wherein said coating structure comprises nickel or nickel (such as tungsten having a surface coating of boron nickel, col. 3, line 35) and wherein said core structure comprises silicon carbide (wherein said core structure comprises silicon carbide, col. 5, line 19). Regarding claim 34, it is rejected for the reasons set forth for claim 33. Furthermore, Hough et al. discloses the carbon in col. 4, line 38.

4. Claims 39, 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricco et al. (US Patent 5,834,627) in view of Messing et al. (US Patent 4,367,127).

Regarding claim 39, Ricco discloses a gas sensor assembly comprising a gas-sensing filament (see: col. 1, lines 64-67) and a catalyst is deposited on one or more electrically selected filaments (a wide variety of metals (e.g., Pt, Pd, Rh, Ir, Ru, Re, Ni,

Au. However, Ricco does not particularly disclose a nickel-copper-aluminum alloy. Berchtold discloses a nickel-copper-aluminum alloy (see col. 2, lines 9-10). It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize in Ricco the nickel-copper-aluminum alloy of Berchtold because the nickel-copper-aluminum alloys have a very good resistance to corrosion and a very good processability. Nickel, chromium, aluminium, copper and lead are examples of metals which can benefit from reinforcement with carbon filaments in certain uses. Thus, the strength of components made of nickel or chromium or their alloys which are subject to high temperatures, for example turbine blades, may be improved by the incorporation of carbon filaments to make the above combination more effective.

Regarding claim 41-42, Ricco discloses a gas sensor assembly comprising a gas-sensing filament (see: col. 1, lines 64-67). However, it does not disclose a nickel-containing gas-sensing filament having a porous surface. Messing discloses gas a Messing discloses filaments comprising the tows are coated with a thin layer of electroplated or otherwise deposited nickel which adds greatly desired properties to the very porous and high surface area electrode (see col. 3, lines 30-34). It would have been obvious to one having ordinary skill in the art to utilize in Ricco the

REMARKS

5. In response to applicant's argument that the reference of Morin is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the

claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

6. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Allowable Subject Matter

7. Claims 1-32, 35-38 and 46-47 are allowable over the prior art of record.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J M. SAINT SURIN whose telephone number is (571)272-2206. The examiner can normally be reached on Mondays to Fridays between 9:30 A.M and 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron L. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jacques M SAINT SURIN/
Examiner, Art Unit 2856